

Experimental and calculated property data are now available. See HELP PROPERTIES for more information. See STNote 27, Searching Properties in the CAS Registry File, for complete details:
<http://www.cas.org/ONLINE/STN/STNOTES/stnotes27.pdf>

```
=> e tankyrase/CN
E1      1      TANK-BINDING KINASE 1 (HUMAN CLONE MGC:26196 IMAGE:4824988)/
CN
E2      1      TANKO KAOLIN/CN
E3      1  --> TANKYRASE/CN
E4      1      TANKYRASE (HUMAN CLONE FB11 ISOENZYME 2)/CN
E5      1      TANKYRASE (HUMAN TESTIS CLONE TT20)/CN
E6      1      TANKYRASE (HUMAN)/CN
E7      1      TANKYRASE 1-BINDING PROTEIN (HUMAN GENE TAB182)/CN
E8      1      TANKYRASE 2 (HUMAN GENE TNKS2)/CN
E9      1      TANKYRASE H (HUMAN ISOENZYME 1 C-TERMINAL FRAGMENT)/CN
E10     1      TANKYRASE H (HUMAN ISOENZYME 2 C-TERMINAL FRAGMENT)/CN
E11     1      TANKYRASE H (HUMAN ISOFORM 1 C-TERMINAL FRAGMENT)/CN
E12     1      TANKYRASE H (HUMAN ISOFORM 2 C-TERMINAL FRAGMENT)/CN

=> s E3;D
L1      1 TANKYRASE/CN
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L1  ANSWER 1 OF 1  REGISTRY  COPYRIGHT 2003 ACS
RN  9055-67-8  REGISTRY
CN  Synthetase, poly(adenosine diphosphoribose) (9CI)  (CA INDEX NAME)
OTHER NAMES:
CN  Adenine dinucleotide phosphoribosyl transferase
CN  Poly(adenosine 5'-diphosphoribose) synthetase
CN  Poly(adenosine diphosphate ribose) polymerase
CN  Poly(adenosine diphosphate ribose) synthetase
CN  Poly(adenosine diphosphoribose) polymerase
CN  Poly(adenosine diphosphoribose) synthase
CN  Poly(adenosine diphosphoribose) synthetase
CN  Poly(ADP-ribose) phosphodiesterase
CN  Poly(ADP-ribose) polymerase
CN  Poly(ADP-ribose) synthase
CN  Poly(ADP-ribose) synthetase
CN  Poly(ADP-ribosyl) polymerase
CN  Poly(ADPR) synthetase
CN  Tankyrase
DR  70712-49-1
MF  Unspecified
CI  MAN
LC  STN Files:  ADISNEWS, AGRICOLA, BIOBUSINESS, BIOSIS, BIOTECHNO, CA,
CAPLUS, CHEMCATS, CIN, EMBASE, PROMT, TOXCENTER, USPAT2, USPATFULL
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*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
      2835 REFERENCES IN FILE CA (1962 TO DATE)
      19 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
      2840 REFERENCES IN FILE CAPLUS (1962 TO DATE)
```

=> d his

(FILE 'HOME' ENTERED AT 08:12:10 ON 15 APR 2003)

INDEX 'ADISCTI, ADISINSIGHT, ADISNEWS, AGRICOLA, ANABSTR, AQUASCI, BIOBUSINESS, BIOCOMMERCE, BIOSIS, BIOTECHABS, BIOTECHDS, BIOTECHNO, CABA, CANCERLIT, CAPLUS, CEABA-VTB, CEN, CIN, CONFSCI, CROPB, CROPU, DDFB, DDFU, DGENE, DRUGB, DRUGLAUNCH, DRUGMONOG2, ...' ENTERED AT 08:12:24 ON 15 APR 2003

FILE 'REGISTRY' ENTERED AT 08:12:34 ON 15 APR 2003

E TANKYRASE/CN

L1

1 S E3

FILE 'BIOSIS, BIOTECHNO, CAPLUS, EMBASE, PROMT, MEDLINE, SCISEARCH, CIN, CHEMCATS' ENTERED AT 08:14:16 ON 15 APR 2003

FILE 'REGISTRY' ENTERED AT 08:14:26 ON 15 APR 2003

SET SMARTSELECT ON

L2

SEL L1 1- CHEM : 16 TERMS

SET SMARTSELECT OFF

FILE 'BIOSIS, BIOTECHNO, CAPLUS, EMBASE, PROMT, MEDLINE, SCISEARCH, CIN, CHEMCATS' ENTERED AT 08:14:27 ON 15 APR 2003

L3

22110 S L2

L4

363 S L3 AND (HOMOLOGS OR ISOFORM)

L5

266 S L4 AND (MODUL? OR INHIBIT? OR ASSAY)

L6

119 DUP REM L5 (147 DUPLICATES REMOVED)

L7

72 S L4 AND (PURIF? OR CHRACT? OR ISOLAT?)

L8

34 DUP REM L7 (38 DUPLICATES REMOVED)

=> log Y

L8 ANSWER 31 OF 34 CAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1993:466272 CAPLUS

DOCUMENT NUMBER: 119:66272

TITLE: **Purification** and characterization of
NAD+:ADP-ribosyltransferase (polymerizing) from
Dictyostelium discoideum

AUTHOR(S): Kofler, Barbara; Wallraff, Eva; Herzog, Herbert;
Schneider, Rainer; Auer, Bernhard; Schweiger, Manfred
CORPORATE SOURCE: Inst. Biochem., Univ. Innsbruck, Innsbruck, A-6020,
Austria

SOURCE: Biochemical Journal (1993), 293(1), 275-81

CODEN: BIJOAK; ISSN: 0306-3275

DOCUMENT TYPE: Journal

LANGUAGE: English

AB A novel affinity-**purifn.** scheme based on the tight binding of
NAD+:ADP-ribosyltransferase (polymg.) [pADPRT; **poly(ADP**
-ribose) polymerase; EC 2.4.2.30] to single-strand
nicks in DNA, single-stranded patches of DNA ends has been developed to
facilitate the **purifn.** of this enzyme from the lower eukaryote
Dictyostelium discoideum. Two homogeneous forms of the enzyme, with Mr
values of 116,000 and 90,000, were prepd. from D. discoideum by using
poly(A) hybridized to oligo(dT)-cellulose as affinity material. The Km is
20 .mu.M NAD+ for the 90000-Mr protein and 77 .mu.M NAD+ for the 11600-Mr
protein. The optimum conditions for the enzyme activity in vitro are 6-10
.degree. and pH 8. The time course is linear during the first 10 min of
the reaction only. As in enzymes of higher eukaryotes, the activity is
dependent on DNA and histone H1 and is inhibited by 3-methoxybenzamide,
nicotinamide, theophylline, caffeine and thymidine.

2501.1247

L8 ANSWER 13 OF 34 CAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1999:795945 CAPLUS

DOCUMENT NUMBER: 132:32676

TITLE: Isolation of poly(ADP-ribose)polymerase genes and

application for diagnosis and gene therapy
INVENTOR(S): Kock, Michael; Hoyer, Thomas; Kroger, Burkhard;
Otterbach, Bernd; Lubisch, Wilfried; Lemaire,
Hans-Georg

PATENT ASSIGNEE(S): BASF Aktiengesellschaft, Germany

SOURCE: PCT Int. Appl., 96 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9964572	A2	19991216	WO 1999-EP3889	19990604
WO 9964572	A3	20000608		
W: AL, AU, BG, BR, BY, CA, CN, CZ, GE, HR, HU, ID, IL, IN, JP, KR, KZ, LT, LV, MK, MX, NO, NZ, PL, RO, RU, SG, SI, SK, TR, UA, US, ZA, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
CA 2330206	AA	19991216	CA 1999-2330206	19990604
AU 9946059	A1	19991230	AU 1999-46059	19990604
BR 9910967	A	20010213	BR 1999-10967	19990604
EP 1082416	A2	20010314	EP 1999-929144	19990604
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, PT, IE, SI, FI, RO				
JP 2002517231	T2	20020618	JP 2000-553562	19990604
NO 2000006153	A	20010202	NO 2000-6153	20001204
PRIORITY APPLN. INFO.:				
				DE 1998-19825213 A 19980605
				DE 1999-19908837 A 19990301
				WO 1999-EP3889 W 19990604

AB The invention relates to **poly(ADP-ribose)**
polymerase (PARP) homologs which are characterized by an
amino acid sequence with (a) a functional NAD⁺-binding site and (b) no
zinc-finger-sequence motif of general formula CX₂CX_mHX₂C, wherein m is an
integral no. 28 or 30 and the radicals X represent any amino acid,
independently of each other; and to the functional equiv. of said
poly(ADP-ribose)polymerase (PARP)
homologs. The invention also relates to nucleic acids coding the
poly(ADP-ribose)polymerase (PARP)
homologs, to antibodies with specificity for the novel protein, to
pharmaceutical and gene therapy agents contg. the inventive products, to
methods for anal. detg. the inventive proteins and nucleic acids, to
methods for identifying the effectors or bonding partners of the inventive
proteins, to novel PARP effectors and to methods for detg. the
effectiveness of effectors of this type.

L6 ANSWER 111 OF 119 SCISEARCH COPYRIGHT 2003 ISI (R)

ACCESSION NUMBER: 94:283648 SCISEARCH

THE GENUINE ARTICLE: NH774

TITLE: PURIFICATION OF POLY(ADP-RIBOSE) GLYCOHYDROLASE AND
DETECTION OF ITS **ISOFORMS** BY A ZYMOGRAM
FOLLOWING ONE-DIMENSIONAL OR 2-DIMENSIONAL ELECTROPHORESIS

AUTHOR: BROCHU G; SHAH G M; POIRIER G G (Reprint)

CORPORATE SOURCE: CHUL, RES CTR, MOLEC ENDOCRINOL LAB, POLY ADP RIBOSE METAB
GRP, 2705 BLVD LAURIER, ST FOY G1V 4G2, PQ, CANADA
(Reprint); CHUL, RES CTR, MOLEC ENDOCRINOL LAB, POLY ADP
RIBOSE METAB GRP, ST FOY G1V 4G2, PQ, CANADA; UNIV LAVAL,
FAC MED, DEPT BIOCHEM, ST FOY G1K 7P4, PQ, CANADA

COUNTRY OF AUTHOR: CANADA

SOURCE: ANALYTICAL BIOCHEMISTRY, (01 MAY 1994) Vol. 218, No. 2,
pp. 265-272.

ISSN: 0003-2697.

DOCUMENT TYPE: Article; Journal

FILE SEGMENT: LIFE

LANGUAGE: ENGLISH

REFERENCE COUNT: 40

ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS

AB Poly(ADP-ribosyl)ation metabolism, a post-translational modification,
involves two nuclear enzymes. **Poly(ADP-ribose**
) polymerase (PARP) and poly(ADP-ribose) glycohydrolase (PARG)
are responsible for the anabolism and catabolism of poly(ADP-ribose)
polymer, respectively. PARG, despite being less abundant than PARP, is a
crucial determinant of polymer metabolism which is known to be implicated
in DNA repair and other cellular processes. Here, we describe
modifications to improve the purification of PARG from calf thymus, in
terms of both quantity and quality, which would allow biochemical and
immunological studies. We also developed a zymogram to identify functional
polypeptides exhibiting PARG activity. Purified and crude enzyme
preparations from calf thymus were electrophoresed in two-dimensional
gels. Samples were resolved on sodium dodecyl sulfate-polyacrylamide gel
electrophoresis containing the polymer substrate in the form of
automodified PARP after a nonequilibrium pH gradient electrophoresis.
After renaturation of PARG in the gel, four **isoforms** of activity
were clearly detected in the purified enzyme preparation. Even in the
crude extract of the tissue, we could observe the major **isoform**
of PARG. This technique will permit a better understanding of
poly(ADP-ribose) catabolism and better characterization of PARG
isoforms. (C) 1994 Academic Press, Inc.